

Remarks

Reconsideration of the application is requested. Claims 1-6, 8-21, 23-28, and 30-32 have been rejected under 35 U.S.C. §102 as being anticipated by Sarkar, and the remaining claims have been rejected under 35 U.S.C. §103 as being obvious over Sarkar in view of Barrick, Jr. et al.

The arguments advanced in previous responses are incorporated herein.

In addition, in an effort to avoid appeal by rendering the claims even more patentable over the applied references, the present independent claims have been amended to recite subject neither taught nor suggested by Sarkar, which describes a system in which XML/RDF is used to represent an object SQL query that gets sent from client to servers and from server to server in a virtual database that is comprised of multiple physical databases. In Sarkar, both the query and the parameters are send as XML/RDF via HTTP or IIOP. This results in the drawback noted in the present background of inflexibly binding a client to a particular database management system (DBMS) language.

In contrast to Sarkar, Claim 1 now recites that the client request for data includes values and specified methods but not an SQL query as set forth on, e.g., page 3, lines 6-11, page 4, lines 3-10, page 7, lines 11-15, and original Claims 19 (now incorporated into independent Claim 17) and 27 (which specify that the middleware generates a fully qualified SQL statement and, thus, that the client perforce does not generate the SQL statement). Similarly, independent Claim 17 recites transmitting a client request including values but not a fully qualified SQL statement, wherein the middleware replaces at least some parameters in the parameterized statement with corresponding values from the client to establish a fully qualified SQL statement for execution thereof by the database system. Claim 28 now sets forth that the client request includes desired values but not constituting a fully qualified SQL statement. In all of the claims, the query itself is never

transmitted from the client, but only desired values. In specific embodiments the client sends an XML/SOAP request over HTTP, and this XML/SOAP request contains parameters, but does not contain an SQL query. Instead, and in marked contrast to Sarkar, the SQL query is stored on the server.

Accordingly, in the present invention, the client need only be provided with the interface definition of the Web service, and thus need have no knowledge of how the Web service is implemented, i.e. there is no indication in WSDL that the Web service is implemented by a SQL statement on a database. The parameter names need not be not associated with any database schema, table, or column, overcoming a disadvantage noted in the present background but in marked contrast to Sarkar, which perforce exposes to the client the structure of the virtual database.

Other advantages attend the presently claimed invention vis-a-vis Sarkar. For example, Sarkar deals with only HTTP, and the type of query that Sarkar can deal with is read-only queries, whereas in the present invention, the SQL statement may modify the database using INSERT, DELETE, UPDATE, and CALL. In fact, one of the main benefits of Web services is that they hide the implementation and expose only an interface to clients (via, e.g., WSDL), which allows the implementation to be changed without breaking clients, in contrast to Sarkar.

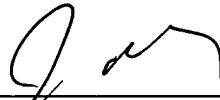
Still further, Sarkar allows clients to send arbitrary queries to the server, which could result in very costly execution, whereas in the present invention the Web service provider defines the queries that can be invoked and does not expose their implementation to the client.

The Examiner is cordially invited to telephone the undersigned at (619) 338-8075 for any reason which would advance the instant application to allowance.

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